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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/071,331	02/08/2002	Sohel Anwar	201-0644 (VGT 0270 PA)	6566

27256 7590 09/26/2003

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EXAMINER

KRAMER, DEVON C

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 09/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/071,331

Applicant(s)

ANWAR, SOHEL

Examiner

Devon C Kramer

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 11 August 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2) Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Naito et al (5657229).

In reference to claims 1, 7 and 14, Naito et al provides a control system for an automotive vehicle having a wheel and wheel brake comprising: a wheel speed sensor (25a) generating a rotational speed signal; and a controller (37) coupled to the wheel speed sensor, said controller determining a vehicle speed (25), calculating wheel slip based upon the vehicle speed and the rotational speed, estimating a normal force on the wheel (abstract), calculating a modified brake torque signal in response to the wheel slip and the normal force, and actuating the wheel brake in response to the modified brake torque signal.

In reference to claims 2-3, 13 and 17, Naito et al provides a control system for an automotive comprising a vehicle speed sensor, said controller determining vehicle speed from the vehicle speed sensor (col 15 lines 8-17), wherein the vehicle speed sensor comprises plurality of wheel speed sensors.

In reference to claims 4, 8 and 15, Naito et al provides a control system for an automotive vehicle wherein said controller estimates a wheel slip and a slip angle threshold and calculates the brake torque signal in response to the wheel slip, the normal force and the slip angle threshold. (col 15 lines 19-28)

In reference to claims 5, 6, 9, 10 and 16, Naito et al provides a control system for an automotive vehicle wherein said controller measures a wheel deceleration (32, figure 3) from the wheel speed sensor; when the wheel deceleration is above a threshold applying the modified torque. Please note that when ABS system controllers do not detect excessive slip or deceleration, a normal braking force is applied which is proportional to that of the pedal force by an operator.

In reference to claims 11-12, Naito et al provides a control system for an automotive vehicle wherein when the vehicle speed is above a speed threshold, performing calculating wheel slip based upon the vehicle speed and the rotational speed, estimating a normal force on the wheel, calculating a modified brake torque signal in response to the wheel slip and the normal[^] force, and actuating the wheel brake in response to the modified brake torque signal when a wheel deceleration is below a threshold. (Figure 5)

Response to Arguments

3) Applicant's arguments filed August 11, 2003 have been fully considered but they are not persuasive. Applicant argues that there is no teaching in Naito et al for "calculating a modified brake torque signal in response to the wheel slip and the normal

Art Unit: 3683

force, and actuating the wheel brake in response to the modified brake torque signal".

Applicant states that a normal force on a wheel is not necessarily the load on the wheel.

The examiner takes the official position that in the instant application, normal force and wheel load are equivalents. Applicant further argues that there is no teaching in Naito

for calculating a modified brake torque signal in response to wheel slip and normal

force. Applicant is asked to look at the equation on col 15 line 48 and figure 3, where a corrected acceleration is computed and wheel slip is detected and a modified pressure or torque is sent to the wheel brakes accordingly.

Conclusion

4) **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 3683

5) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devon C Kramer whose telephone number is 703-305-0839. The examiner can normally be reached on Mon-Fri 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-3519 for regular communications and 703-308-3519 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1134.

DK
September 23, 2003


JACK LAVINDER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600